

Warehouse efficiency reimagined

S&S Activewear transforms warehouse operations with automation—boosting productivity, accuracy and employee satisfaction across its growing distribution network.



Snapshot

Company
S&S Activewear

Industry
Apparel Distributor

Project Size
1,700 Geekplus robots
across 850,000 sq ft

Solution(s)
Autonomous Mobile
Robots (AMRs)

Complexity

S&S Activewear needed a scalable automation solution that could integrate with its custom-built systems, address labor shortages and maintain high-volume, next-day fulfillment without disrupting operations.

Best practice

Implementing AMRs to boost picking speed, reduce training time and enhance employee satisfaction.

Background

S&S Activewear (S&S) is a leading distributor of blank apparel, with a wide range of products, from t-shirts and hats to sweatshirts and socks. With major customers like Staples, Vistaprint and Custom Ink, S&S plays a critical role in the promotional and custom apparel supply chain. Their business model demands rapid fulfillment, often shipping orders same day to ensure decorators can customize and deliver goods in time for events.

The challenge

Like many companies, S&S faced significant labor shortages following COVID-19, heightened by the seasonal nature of its business. The company needed a system that could relieve workforce pressure while meeting high customer expectations—accepting orders as late as 5 p.m. and ensuring same-day shipping. S&S required a flexible, scalable solution capable of adapting to peak periods while supporting long-term growth.

3x

picking rates
tripled

75%

lower turnover

67%

increase in order
processing
capacity

Before pursuing external automation, S&S maintained full control over its technology ecosystem, having developed both its Warehouse Management System (WMS) and Enterprise Resource Planning (ERP) platform in-house.

As the company evaluated automation solutions, three key criteria guided the decision:

- **Cost efficiency:** Affordability was a key consideration, ensuring that the solution could be implemented efficiently without driving up operational costs.
- **Adaptability:** The ability of the system to integrate seamlessly with their custom ERP.
- **Scalability:** Could it be deployed within their existing distribution footprint without major structural changes.

Maintaining operational continuity while introducing scalable automation was essential to their decision-making process.

The solution

After evaluating Autonomous Mobile Robot (AMRs) options, Infios and Geekplus emerged as ideal partners, “Infios and Geekplus were great partners. They provided us with data projections—it really made us feel comfortable transitioning from our old system to the new PopPick system,” said Adam Kranich, assistant operations manager at S&S. Infios’s adaptability and customer-first mindset, combined with Geekplus’s scalable technology, ensured a seamless integration.

- **Receiving & decanting:** Products are unpacked into custom tall totes at ergonomic stations, scanned and inducted into the system.
- **Automated induction:** A first-of-its-kind PopPick system automates tote intake and return, enabling seamless storage and retrieval with minimal manual intervention.
- **Quality control:** Totes are weighed and measured during induction to ensure product accuracy and prevent errors.
- **Dynamic slotting:** Overnight reorganization groups similar SKUs for efficient picking, supporting A/B mover strategies.
- **Robotic picking:** Ergonomic stations with pick-to-light modules and load cells enable fast, accurate picking with real-time quality control (QC) and instant label printing.
- **Packing & put wall:** Put-to-light guidance and asynchronous workflows streamline packing, supporting both bagged and boxed orders with automated cartonization.



By the numbers

- Picking rates almost tripled: **275% increase** in picks per hour. Before pickers were at 40 LPH, now under good conditions pickers pick up to 200 LPH.
- Training time **decreased by ~85%**.
- S&S completes 20 orders per minute compared to 12 with the previous system—representing a **67% increase in order processing capacity**.
- The average **order fulfillment time is 15% faster on average** than the prior method—reaching up to four times faster in select scenarios.
- Up to **20% improvement in customer order accuracy**—while picking errors on the assembly line have reduced by 50-60% as technology eliminates extra touches.
- **Eliminates more than 1,200 miles of worker travel** per facility each daily, dramatically reducing physical strain.
- Pickers can complete **24 orders per hour** compared to 6 orders per hour.
- An individual employee can **pick over 5,000 units per day** compared to 1,200 units per day.



The results

The deployment of the PopPick system marked a transformative shift in S&S's warehouse operations. The PopPick auto-induction system is a first of its kind. It automatically returns empty totes via an upper conveyor and accepts full totes through a lower path. Once inducted, totes are stored until needed. This closed-loop system handles 6,000 tote movements daily.

The system's flexibility has been a standout feature. It allows S&S to re-slot and reconfigure racks on the fly to meet changing demand. Enhanced picking workflows, including dual-sided put-to-light modules on the put wall, enable packers to select the right box size and pick directly into outbound cartons. This eliminates downstream packing steps and accelerates order fulfillment.

Previously, associates spent 50–60% of their day walking to pick locations, limiting productivity. With PopPick, autonomous mobile robots now handle the travel, allowing pickers to stay in place and focus solely on value-added tasks. This shift has significantly increased throughput and streamlined workflows.

From the associate's perspective, the benefits are equally compelling. The system reduces physical strain, improves picking speed and accuracy, and creates a safer, more ergonomic work environment. As a result, picking rates have tripled, from 40 lines per hour to as high as 200 under optimal conditions. Training time has also been dramatically reduced, from 90 days to just 1–2 weeks, enabling faster onboarding and improved employee retention.

"The success with the system we've seen in Lockport led us to install these in four other distribution centers (DCs) across our network and we're continuing to plan expansions," said Cole Lohman, director of automation, S&S.



"Infios has been a tremendous partner. They show attention to detail and technical capabilities to implement automation solutions."

Brian Tanqueray
VP of IT, S&S Activewear

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